Course Type	Course Code	Name of Course	L	T	P	Credit
DP6	CSC304	**Compiler Design Lab**	0	0	2	2

Course Objective
Practical Implementation of different phases of a compiler with the aim of designing and implementing a new compiler.
Learning Outcomes
The students will be able to learn the implementation of the following ● Lexical Analyzers ● Parser using both top-down and bottom-up approach ● Error handler ● Code optimizer

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Lexical analyzer using state diagram.	2	Implementation of LA using state diagram.
2	Lexical analyzer from Finite Automata.	4	Implementation of LA using Finite Automata.
3	Shift Reduce Parsing.	2	Implementation of Shift reduce parser.
4	Operator Precedence Parsing.	2	Implementation of Operator Precedence parser.
4	Predictive Parsing.	4	Implementation of Predictive Parser.
5	SLR, LR and LALR Parsing.	6	Implementation of LR parsers.
6	Code Optimization.	6	Implementation of Code optimization.
7	Error Handler.	2	Implementation of Error handler

Text Books:

1. Aho, Ullman, Sethi, *Compiler Principles, Techniques and Tools*, Addison-Wesley, 2004.

Reference Books:

1. Alfred Aho and Jeffrey Ullman, *Principles of Compiler Design*, Narosa, 2002.